

The amended claims 14, 49, 50, 51, 52, 53, 61, 62, 63, 65 and 66, re-written in "clean format":

14. (Once Amended) An adeno-associated virus vector comprising a nucleotide sequence encoding a fusion polypeptide, the fusion polypeptide comprising:

- (a) a structural papillomavirus polypeptide encoded by an open reading frame selected from the group consisting of L1-ORF, L2-ORF and fragments of any of the foregoing ORFs; and
- (b) an early papillomavirus polypeptide encoded by an open reading frame selected from the group consisting of: E1-ORF, E2-ORF, E4-ORF, E5-ORF, E6-ORF, E7-ORF and fragments of any of the foregoing ORFs, wherein said early papillomavirus polypeptides or fragments thereof are non-transforming.

49. (Once Amended) An adeno-associated virus vector comprising a nucleotide sequence encoding a fusion polypeptide, the fusion polypeptide comprising:

- (a) a structural human papillomavirus polypeptide encoded by an open reading frame selected from the group consisting of L1-ORF and L2-ORF; and
- (b) an early human papillomavirus polypeptide encoded by an open reading frame selected from the group consisting of: E1-ORF, E2-ORF, E4-ORF, E5-ORF, E6-ORF and E7-ORF, wherein said early human papillomavirus polypeptides are non-transforming.

50. (Once Amended) An adeno-associated virus vector comprising a nucleotide sequence encoding a fusion polypeptide, the fusion polypeptide comprising:

- (a) a structural human papillomavirus polypeptide encoded by an open reading frame selected from the group consisting of L1-ORF and L2-ORF; and
- (b) an early human papillomavirus polypeptide encoded by an open reading frame selected from the group consisting of: E1-ORF, E2-ORF, E4-ORF, E5-ORF, E6-ORF and E7-ORF,

wherein said early human papillomavirus peptides are non-transforming and the human papillomavirus of (a) and (b) is selected from the group consisting of HPV 16, HPV 18, HPV 33, HPV 35 and HPV 45.

51. (Once Amended) An adeno-associated virus vector comprising a nucleotide sequence encoding a fusion polypeptide, the fusion polypeptide comprising:

- (a) a structural human papillomavirus polypeptide encoded by L1-ORF or a fragment thereof; and
- (b) an early human papillomavirus polypeptide encoded by an open reading frame selected from the group consisting of: E6-ORF, E7-ORF and fragments of any of the foregoing ORFs, wherein said early human papillomavirus polypeptides are non-transforming.

52. (Once Amended) An adeno-associated virus vector comprising a nucleotide sequence encoding a fusion polypeptide, the fusion polypeptide comprising:

- (a) a structural human papillomavirus polypeptide encoded by an HPV16 or 18 L1-ORF or a fragment thereof; and
- (b) an early human papillomavirus polypeptide encoded by an HPV 16 or 18 open reading frame selected from the group consisting of E6-ORF, E7-ORF and fragments of any of the foregoing ORFs, wherein said early human papillomavirus polypeptides are non-transforming.

53. (Once Amended) An adeno-associated virus vector comprising a nucleotide sequence encoding a fusion polypeptide, the fusion polypeptide comprising:

- (a) a structural human papillomavirus polypeptide encoded by HPV16 or 18 L1-ORF; and
- (b) an early human papillomavirus polypeptide encoded by an HPV 16 or 18 open reading frame selected from the group consisting of: E6-ORF and E7-ORF, wherein said early papillomavirus polypeptides are non-transforming.

3 61. (Once Amended) The vaccine composition of claim 60 further comprising one or more immune system-activating agents.

62. (Once Amended) A vaccine composition comprising:

(a) a cell transfected with the vector of claim 14; and

5
12 (b) an auxiliary agent.

63. (Once Amended) The vaccine composition of claim 62 wherein the cell is a tumor or pre-tumor cell infected with a human papillomavirus.

65. (Once Amended) A method for activating an immune system of a subject comprising administering to the subject an adeno-associated virus vector comprising a nucleotide sequence encoding a fusion polypeptide, the fusion polypeptide comprising:

13.4 (a) a structural papillomavirus polypeptide encoded by an open reading frame selected from the group consisting of: L1-ORF, L2-ORF and fragments of any of the foregoing ORFs; and

(b) an early papillomavirus polypeptide encoded by an open reading frame selected from the group consisting of: E1-ORF, E2-ORF, E4-ORF, E5-ORF, E6-ORF, E7-ORF and fragments of any of the foregoing ORFs, wherein said early papillomavirus polypeptides are non-transforming.

66. (Once Amended) The method of claim 65 wherein the adeno-associated virus vector is administered as a component of a vaccine composition.